NONPOINT SOURCE TIMES

VOLUME 14, ISSUE 2 SPRING 2005

THINKBLUEMAINE - A SUCCESS

Maine DEP's first project to be completely based on social marketing principles was a great success. And we have the data to prove it! The *Think Blue Maine* campaign successfully caught the attention and conveyed our message to 14.4% of Maine adults! And almost a third (32%) of Maine's adults say they plan to or have taken action to protect water quality.

We used market research to set the direction for the state's outreach effort, to implement the campaign and to evaluate it. We ran focus groups to learn about our audience – what did they think about the quality of their local waters, what was causing problems and what practices would they be willing to undertake to protect water quality. We also tested messages and specific ads. In addition, we did a pre-survey of 3600 municipal employees throughout the MS4 (Municipal Separate Stormwater Sewer Systems) communities on their depth of understanding of "watershed" and "runoff". The survey also asked about sources of pollutants and current household and yard practices. We used this data to further define our audience and our outreach campaign.

We targeted those most receptive to environmental messages and most likely to act: 35-55 year olds residents with some college education. We chose a message that conveyed how stormwater gets polluted and the route it takes to local waters – 2 messages that we knew our audience needed before they could be expected to take actions to protect water quality.

The 36 regulated MS4s, Maine DEP, and other state agencies formed a statewide partnership. We purchased TV and radio time to insure our message got out when and where we needed it. The ads and media buy were well directed, successfully reaching our target audience in greater numbers than those not targeted.

We hired an independent market research firm to conduct statistically valid phone surveys before and after the campaign to measure our effectiveness. Over 14% of Maine adults recalled images or specific messages from our ads. Most marketing campaigns aim for a 5-

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10% recall so our effect was significantly above that threshold. When prompted with clues, 66% of Maine adults recalled the TV ad and 40 % recalled the radio ads.

One issue that we were particularly eager to improve was public awareness that soil is a pollutant. In 1996 when we started asking what is polluting our waters, no one mentioned soil; now 6% mention soil.

To capitalize on these successes, our Partnership needs to orchestrate a second year of mass media, while at the same time working locally to encourage individual BMPs and sustainable behavior change.

For a copy of the full report see http://www.state.me.us/dep/blwq/newpub.htm For more information contact Kathy Hoppe, MDEP 207-764-0477 or Kathy.m.hoppe@maine.gov

HIGHLIGHTS FROM 2004 SURVEY OF KENTUCKIANS ENVIRONMENTAL KNOWLEDGE, ATTITUDES & BEHAVIORS

Editors Note—the following is excerpted from *The 2004 Survey of Kentuckians Environmental Knowledge, Attitudes and Behaviors.*

In 1995, the Kentucky Environmental Education Council (KEEC) a state agency, was established to improve environmental education in the Commonwealth. The General Assembly charged the agency with a number of tasks, one of which was to "monitor and report periodically on environmental literacy in Kentucky." KEEC, working with the University of Kentucky Survey Research Center, completed the first survey of environmental knowledge, attitudes and behaviors in 1999 and the second in 2004. This report gives the results of the 2004 survey and compares it to the 1999 survey.

As in the first report, this survey does not actually measure the environmental literacy of Kentuckians. Environmental literacy is so complex that it is difficult to define, let alone to measure. This survey, conducted by the UK Survey Research Center on a random sample of 669 Kentucky adults from September through November of 2004, is simply a snapshot of whether Kentuckians can answer some very basic questions about issues that deal with air, land and water quality. It also asks Kentuckians to share their attitudes about certain environmental issues, such as how well we are protecting our natural resources. Finally, it asks Kentuckians to identify whether or not they engage in behaviors that might improve their environment.

The survey asked questions that measured Kentuckians' knowledge of current environmental topics. The questions were designed to be very easy. These are questions that any middle school student should be able to answer and, as expected, the majority of respondents to the survey were able to answer many, though not all, questions correctly. However, a very significant minority – in many casesnearly half – of respondents were not able to give correct answers to these very basic questions.

Though water pollution is identified as a leading source of concern by those surveyed, Kentuckians are not able to correctly identify runoff from fields, pavements and lawns as the leading source of water pollution in the Commonwealth. Only 17% of respondents identify runoff as the leading source of water pollution (compared to 21% in 1999). In 2004, a whopping 56% incorrectly identify factory waste as the leading source of water pollution.

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Two new knowledge questions were added to the 2004 survey. In the first, those surveyed were asked to answer the question, "What is a watershed?" Only 65% percent correctly answered, "the area that channels rain into a particular body of water." The response to this very basic question adds to the concern that most Kentuckians incorrectly identify the leading source of water pollution, although they continue to identify water pollution as the single most important environmental issue in the Commonwealth.

On the final question of the knowledge section, those surveyed were asked to identify where Kentucky ranks nationally in acres of land per person that have been converted to development. The correct answer is second, but only 7% of respondents correctly answered this question. The most common, though incorrect, answer was 30th, given by 55% of those surveyed.

In 1999, Kentuckians surveyed tended to believe that air and water quality in the areas where they lived was better than air and water quality in general. These beliefs held true in the 2004 survey, though the percentages changed somewhat.

...even though people understand the scientific facts of environmental issues, they do not connect those facts with their own actions and behaviors.

A new question in the 2004 survey asked Kentuckians to agree or disagree with this statement: "It is possible to both protect the environment and have a strong economy." A remarkable 92% of respondents either strongly agreed or somewhat agreed with this statement

Those surveyed were asked to agree or disagree with the statement: environmental education should be taught in the schools." Ninety-seven percent agreed that environmental education should be taught in the schools compared to 96% in the 1999 survey.

A new and related question asked whether the state should invest more in teaching about the environment. Eighty-eight percent of Kentuckians agreed that the state should invest more in this effort.

In a final question, which was new on the 2004 survey, respondents were asked if they agreed or disagreed with this statement: "The everyday actions by Kentucky citizens, regarding home, farm and land management, are the major source of water pollution." Twenty percent of those surveyed strongly agreed with this statement while 50% somewhat agreed with it. The 20% figure is similar to the 17% that correctly identified runoff as the leading source of water pollution, which makes sense since runoff is essentially caused by the "everyday actions of all of us" with respect to water quality.

Planting trees is often an indicator of environmental stewardship and, in the 2004 survey, 24% of Kentuckians surveyed reported that they frequently plant trees, while 46% reported doing so occasionally. In 1999 these figures were 28% and 41% respectively.

..women were significantly less likely to correctly answer several of the questions in the knowledge section of the survey.

Although they did less well than men on the knowledge questions, women were significantly more concerned about the environment.

Only 55% of those who live on farms, 47% of those who live in rural non-farm areas and 49% of those who live in small towns rate their water quality as either excellent or good, but the rate increases sharply for those living in suburbs, 68% of whom rate their water quality as excellent or good and those who live in cities, 66% of whom rate their water quality as excellent or good.

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41% of Kentuckians living on rural farms reported frequently planting trees as compared to only 19.4% of those living in cities of 50,000 or more.

Among the most dramatic but not surprising differences on the survey was the number of correct answers in the knowledge section of the survey when respondents were divided by education level. For example, only 44% of respondents who reported finishing only grade school could correctly identify the importance of the earth's ozone layer, while 84% of those with graduate college degrees could do so. The same was true for providing the correct definition for biodiversity (29% of those who had finished only grade school as compared to 77% of those with graduate degrees.) Seventy-four percent of those with graduate degrees could correctly identify renewable resources compared to only 47 % of those who had finished only grade school.

In fact, for eight of the twelve knowledge questions on the survey, those with more education did statistically better than those with less, with correct answers rising steadily as education levels rose. However, on self-reported environmental behaviors, despite their better knowledge of environmental facts, those with more education were not more likely to report engaging in environmentally responsible behaviors. Moreover, attitudes about the environment were not significantly different among the various educational levels. The one exception was that 71% of those with graduate degrees said they would be willing to spend more for goods and services in order to protect the environment, compared to only 36% of those who did not finish grade school. Of course, this may be a function of their higher income levels.

One conclusion that may be drawn from this is that even though people understand the scientific facts of environmental issues, they do not connect those facts with their own actions and behaviors. This may be why Kentuckians believe that air and water pollution come from factories rather than from the every day actions of all of us. This is an argument for environmental education that is interdisciplinary; examining not just natural systems but the interrelationships between human and natural systems.

RFP FOR NPS CONTROL PROJECTS

Maine DEP expects to issue a Request For Proposals for Nonpoint Source Projects in late March 2005. Projects are to help restore or protect lakes, streams, or coastal waters that are polluted or considered threatened. DEP anticipates issuing NPS grants with FFY 2006 monies provided to Maine by the U.S. Environmental Protection Agency under the Section 319(h) of the Federal Clean Water Act. Maine public organizations such as state agencies, soil and water conservation districts, regional planning agencies, watershed districts, municipalities, and nonprofit 501(c)(3) organizations are eligible recipients.

The RFP is for watershed-scale projects that benefit waters listed as "NPS Priority Watersheds". A portion of funds will be allocated for projects crafted to help restore 303(d) listed waters that have an approved TMDL analysis. Three types of projects will be invited: Watershed Projects, Watershed Surveys, and Development of Watershed Management Plans. DEP plans to devote about 80% of the funds for NPS Watershed Projects. A NPS Watershed Project focuses on implementing actions in a watershed to improve or protect a waterbody. The project is designed so that BMPs are implemented in a manner that leads to a significant reduction in NPS pollutant loading.

There is considerable opportunity to obtain a NPS grant to help protect or restore Maine's clean waters. As an outcome of last years RFP, this April DEP will award about $614,000 for 18 projects. DEP had received thirty-one proposals. The 2006 RFP will be posted at DEP website www.state.me.us/dep/blwq/grants.htm#319

FMI contact: Norm Marcotte, Maine Department of Environmental Protection, Division of Watershed Management, 17 State House Station, Augusta, ME 04333, norm.g.marcotte@maine.gov or 207-287-7727

WATERSHED INITIATIVE GRANT
- WINTER COVER PROJECT -

In 2002, a group of interested individuals and organizations convened at the Southern Aroostook Soil and Water Conservation District (District) office to jointly develop a project to submit to the Environmental Protection Agency's Watershed Initiative Program addressing water quality problems in the Meduxnekeag Watershed. This collaboration, in part, resulted in the Winter Cover Project; designed to keep productive agricultural soil on potato fields (especially during spring runoff) and out of tributaries and branches of the Meduxnekeag River. Cooperators included District personnel and the Chair of the District Board, staff from the Natural Resources Conservation Service, UM Cooperative Extension and Maine Department of Environmental Protection, members of the Meduxnekeag Watershed Coalition and Organization for Watershed Living, and representatives from the Houlton Band of Maliseet Indians.

Once the Winter Cover Project was formulated, the Houlton Band of Maliseet Indians (HBMI) agreed to write and submit the project proposal on behalf of the District and other cooperators and cosponsored the proposal along with the State of Maine. With the success of our submittal, HBMI is now responsible for managing the grant award and working with the District and other project partners to ensure the success of the project.

The District has received funds from the HBMI to facilitate and coordinator the project with local area growers. In order to qualify for this program a producer's land must fall within the boundaries of the south branch of the Meduxnekeag River Watershed and have been in potato production during the current growing season.

There are two practices being promoted. The first encourages growers to broadcast barley or oat seed onto potato ground 2-5 days before harvest. The seed will then be incorporated into the ground by the potato harvester. Recommended seeding rates are a minimum of 3 bushels/acre for barley and 4 bushels/acre for oats. The choice of grain depends on what type of cereal grain crop the grower plans to grow the following year. Growers are given a $15/acre payment for this conservation practice, which is constant with NRCS cost share payments. (note that this practice has not been offered by NRCS in Maine so this is not a duplication of EQIP.)

Bale buster at work on harvested potato ground.

The second practice is mulching bare ground. Mulch hay (or straw although hay is preferred) is applied to the ground with the bale buster at a rate of 1.5 - 2 tons/acre (approximately 2 large round bales). The District currently has two Jiffy Bale Busters which were purchased with the grant money. They are available to growers for use in this program. It should be noted that this practice can be applied on top of snow and as late as the equipment can still traverse the fields. This program offers growers $50/Acre.

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Although the project technically started in 2003, the timing of the final agreement with EPA made it difficult to really implant the program before the end of the 2003 growing season. However, the District was able to get 4 growers to do a few pilot sites in the fall of 2003 for a total of 285 acres. For all intensive purposes the project's first real year was 2004.

In 2004, ere 11 growers participated and almost 1,000 acres were planted with a winter cover crop. There were 9 growers and almost 900 acres involved in the mulching practice. It is roughly estimated that 542 tons of soil has been kept on the field. Due to the lack of snow in the fall of 2004 early 2005 it has been possible to mulch into January.

Concurrent with the actual implementation of the conservation practices, University of Maine Cooperative Extension Service is conducting field trials and research to document the effects of the practices. One of the selling points to both of these practices is not only the reduction in soil loss but also the sequestering of nutrients by the young barely and oats and the increase carbon in the soils from both practices. Both of these result in better potato production and lower long term costs to the grower.

For more information contact Matt Williams at University of Maine Cooperative Extension 207-532-6548.

USING COLLABORATIVE LEARNING TO OVERCOME BARRIERS TO WATERSHED MANAGEMENT

Timely application of best management practices and technological innovations with potential to contribute to improvements in water quality can be blocked when adopters of the information fail to recognize or understand the relevance or benefits. An interdisciplinary research project at the Wells National Estuarine Research Reserve is attempting to bridge knowledge gaps among watershed stakeholders through a series of collaborative learning workshops. The working title for the workshop series is *"Protecting our Children's Water - Implementing the Merriland, Branch Brook and Little River Watershed Management Plan."* One goal of the workshops is to bring municipal officials, water managers and scientists together to collaboratively develop strategies to implement action items identified in the Watershed Management Plan developed for the region as part of state funded 319 Grant.

What the 26 square mile Little River watershed lacks in size, it makes up for in significance. The watershed includes the drainage basins for the Merriland River and Branch Brook which collectively drain portions of the towns of Sanford, Wells and Kennebunk in southern Maine. Branch Brook is the drinking water source for five communities in this rapidly developing area of York County. The watershed is also important for wildlife, estuary-based research and recreation. The watershed encompasses conservation lands that have local, regional and national significance including the Rachel Carson National Wildlife Refuge and the Wells National Estuarine Research Reserve.

Implementing a Watershed Management Plan using collaborative learning requires understanding the cultural worlds of potential stakeholders. Chris Feurt of the Wells Reserve and University of New England has spent the past year interviewing scientists, water managers and municipal officials to better understand their knowledge and attitudes toward the importance of water, threats to water quality and strategies for protecting water. Her research borrows ethnographic methods from anthropology and analyzes

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interpersonal interviews to understand the mental models that watershed stakeholders are using to guide their decision making about water. The knowledge of stakeholder mental models will be incorporated into the design of the watershed workshops using the *Collaborative Learning Approach* pioneered by Drs Greg Daniels and Steven Walker.

Successful ecosystem management depends upon establishing and nurturing linkages between institutions, social systems and the biophysical world of nature upon which they depend. Cultural gaps between scientists defining coastal watershed issues, policy makers and municipal officials who are most able to implement changes in land use practices can be a barrier to sustainable watershed management. The goal of this project is to bridge that barrier through communication and education strategies that take into account cultural differences and harness the power of deliberation and collaboration. Collaborative learning attempts to dissolve expert/novice barriers and uses differences in expertise, knowledge, and experience as fuel for innovation. Lessons learned from this project will be used to refine a model strategy for facilitating the implementation phase of watershed management plans. For more information contact Chris Feurt at cfeurt@wellsnerr.org.

Written & submitted by Chris Feurt.

SPRAWL SUMMIT HELD

Governor John Baldacci kicked off the *Smart Growth Summit* on December 10 at the Augusta Civic Center. Other keynote speakers included former Governor Angus King and Christine Todd Whitman, former Governor of New Jersey. About 500 participants were in attendance.

This was Maine's first smart growth summit. It was organized by *GrowSmart Maine* and is the result of many people from around the state representing the interests of: natural resource protection, farming, forestry, land preservation, environmental protection, downtown revitalization, transportation, health care, real estate development, land use planning, business, and affordable housing.

Participants attended a variety of workshops, ranging from getting to regionalism, to protecting the rural and natural landscape, to big boxes and their effects on local businesses, to sprawl's role in the rise of obesity, asthma, and Lyme disease.

SPO co-sponsored the summit, hosted a booth, and provided several speakers for the event. Joyce Benson, an economist with SPO, and also a diversified farmer in Troy, Maine, sat on a panel on *Sustaining Farming in the Face of Sprawl*. Liz Hertz was part of a panel that promoted *Beginning with Habitat* as a local strategy for conservation. Sue Inches participated on a panel entitled, *Policy Forum: "What Can the State Do?"*

GrowSmart Maine is a new statewide non-profit organization that works to organize and coordinate the talent and energy of Maine people and to promote the idea that the best hope of halting sprawl comes from working together. CONTACT: Sue Inches at 287-2989 or sue.inches@maine.gov or CONTACT: Matt Nazar at 287-4818 or matthew.nazar@maine.gov

LOW IMPACT DEVELOPMENT
(REINING IN THE STORMWATER—ONE BUILDING AT A TIME)

Note: the following is an excerpt from an eight page guide that is part of the Northern Virginia Commission project.

LID in a Nutshell

LID is a comprehensive, site-based planning and design strategy to manage both quantity and quality of stormwater runoff. As a practical, low-cost alternative to conventional stormwater management, LID does a better job of protecting natural and economic resources. LID offers improved control over the volume, velocity and quality of surface runoff, particularly from the frequent small storms that deliver the lion's share of pollutants to local rivers, reservoirs, and the Chesapeake Bay.

LID uses small, economical landscape features, known as integrated management practices. These practices are distributed to minimize surface runoff at its source. LID practices intercept, retain, and filter runoff until it infiltrates into the soil or evaporates into the atmosphere, thereby reducing the volume and rate of runoff. The intended result is that a developed site should have no adverse effect on the flow of the stream to which the site drains during and after storms, i.e., the natural rising and falling of the stream, as reflected in the predevelopment hydrograph, remains unchanged.

LID views stormwater as a resource. By controlling the quality and quantity of runoff, the health and supply of surface and ground water sources should be better protected from the impacts of development-caused pollution.

Basic Principals of LID

Five basic design principles represent the spectrum of true Low Impact Development:

Conservation The very first step of LID is to assess a site to identify and protect features that provide valuable natural functions associated with controlling stormwater. These areas may include drainage paths, streamside forests, permeable soils, steep slopes, and wetlands. Conservation of sensitive areas is a cost-effective first step in maintaining the natural processes for controlling runoff and protecting water quality.

Minimization of Impacts A second step is to look for opportunities to limit clearing, grading and the addition of impervious surfaces. Buildings, roads and parking lots should be located so as to protect the water-related characteristics of a site and to enhance the connectivity of undisturbed natural areas.

Direction of Runoff to Natural Areas Drainage systems for hard surfaces such as parking lots and rooftops can be disconnected from other hard surfaces in order to help slow and filter stormwater. Gutters and downspouts can direct rain to planting beds. LID treats stormwater as a precious resource, as it is captured and allowed to infiltrate, evaporate or be reused.

Use of Small-Scale Controls Also called Integrated Management Practices, LID practices are integrated into the landscape and the built features of a site. Examples of LID practices include rain gardens, vegetated swales, cisterns, green roofs, and amended soils for better infiltration. When working together as a system, small-scale LID practices are designed to reproduce natural processes that occur during rainfall, such as infiltration, detention, retention, evaporation, and groundwater recharge.

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Pollution Prevention and Education LID includes erosion and sediment control and prevention of soil compaction during site preparation and construction. Oversight to ensure proper installation and maintenance of LID practices should be institutionalized. While maintenance is minimal or non-existent for many LID practices, other practices should be monitored.

Community education, including ongoing programs for owners and operators of properties with LID practices is essential. Homeowners or a responsible management entity will need to ensure ongoing maintenance of certain stormwater infiltration practices.

For more on LID check EPA's web site www.epa.gov/owow/nps/lid/ or Low Impact Development Center www.lowimpactdevelopment.org/

Low Impact Development Conference

When: April 25, 2005
Where: Augusta Civic Center, Maine

Sponsored by Maine DEP's Nonpoint Source Training Center, MDEP, American Society of Civil Engineers.

FMI contact Bill Laflamme, MDEP 207-7726.

Maine's Priority Watershed List

Maine's Priority Watershed List was originally compiled as part of MDEP's proposal for a bond issue in 1997. The list, which was generated through working groups under the Maine Watershed Management Committee has been used to identify where state & federal agency resources should be directed. Projects proposed in priority watersheds receive preference for funding in the NPS Grants Program. Water bodies were selected based on an evaluation of their value, the degree of threat or impairment due to NPS pollution, the feasibility of improving water quality, and the degree of public support.

MDEP is now in the process of updating the Priority Watershed List through 3 working groups; lakes, rivers & streams, and coastal. All groups have held at least one meeting, some groups 2. The meetings focused on the criteria for listing. Criteria for determining threatened or impaired waters is fairly good; criteria for determining significant value is much more subjective, particularly for rivers and streams, so the group is still working on that.

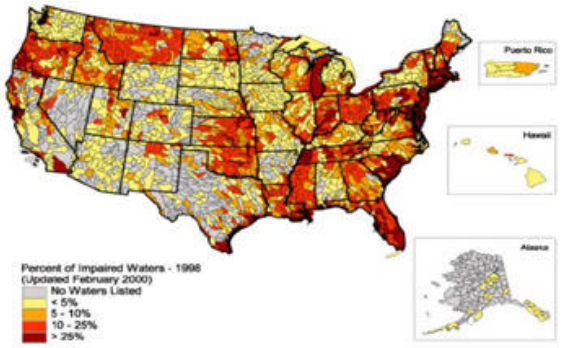
The process will be to finish working on criteria, then review data to look for those resources that meet the criteria. MDEP staff will be solicited for input. A draft list will be put out on MDEP's web site and MDEP will publish a public comment period notice. At this time MDEP staff are unsure when exactly this will occur, due to storms and other issues the process has not been moving as quickly as originally envisioned, but there is no hurry the new list will not impact the next round of the 319 Grant awards. After the comment period, MDEP staff will take the draft lists to the Land & Water Resources Council for adoption.

If anyone would like more information contact Don Witherill at 207-287-7725 or don.t.witherill@maine.gov.

GROWTH & WATER RESOURCES

Now On-line "Growth and Water Resources" Training Module.

A new on-line, distance learning training module called "Growth and Water Resources" has recently been posted on EPA's Watershed Academy Web at: http://www.epa.gov/watertrain/smartgrowth/. This training module explains how changes in land use affect water resources, and presents national data on trends in development patterns and activities on land that have become increasingly significant challenges for achieving water quality standards. The module describes a combination of approaches to accommodate future growth in a way that benefits the economy and the environment and will help us meet our water resource goals. The module also includes a "tools" section with links to on-line resources. This training module was developed by EPA's Office of Wetlands, Oceans and Watersheds Smart Growth Team. For more information, please contact Jamal Kadri at kadri.jamal@epa.gov.



Given current trends in development patterns, we will be unable to meet the goals of the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA) with our traditional water programs alone.

BRIEF NOTE ON FFY 05 & FUTURE 319 FUNDING.

In the Federal Fiscal Year '05 (FFY '05) budget passed by congress earlier this year, funding for the NPS 319 program was cut approximately 13%. For Maine that results in a cut of $351,000 down to $2,318,844. In the President's FFY '06 budget proposal 319 is flat funded, which of course really amounts to a cut when one takes into account cost increases.

On top of the federal cuts, there is also the state budget issue. Taken together the result looks like less 319 money available for both 319 grant pass-through projects and directly funded projects in the future.

NEW MAINE NPS ANNUAL REPORT

MDEP staff is in the process of developing and putting together a Maine NPS Annual Report, or what might turn out to be more technically a 319 NPS Annual Report.

The intent of the report is to provide a snap shot covering activities MDEP and our partners have undertaken to address NPS issues. The target audience includes EPA, MDEP senior management, the legislature and the governor's office. The report will include an introduction to Maine's program, a summary of projects completed during that year, and descriptions of in-house or directly funded 319 projects accomplishments.

It is the hope of MDEP staff to have the report completed, or at least a substantial draft, by the first of April. Some of you may have already reviewed draft summaries of your completed projects for the report—thank you. To provide a glimpse for others on what the individual project summaries will look like, the next two pages feature an example.

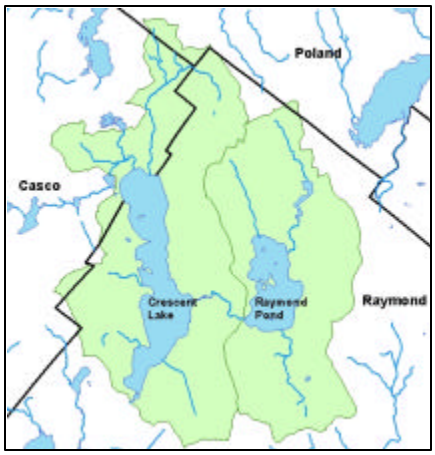
The report will be available on MDEPs web site once it is complete.

If you would like more information about this report, please contact Norm Marcotte at 207-287-7727 or norm.marcotte@maine.gov

Example from NPS Annual Report—for more information see previous page of newsletter.

Raymond Pond and Crescent Lake Demonstration Project
#2001R-03

Waterbody Name:	Raymond Pond and Crescent Lake
Location:	Raymond and Casco, Cumberland County
Waterbody Status:	NPS Priority Watersheds, Most At Risk
Project Sponsor:	Cumberland County SWCD
Project Duration:	May 2001 – November 2004
319 Grant Amount:	$58,710
Local Match:	$88,529



PROBLEM:

Crescent Lake and Raymond Pond are located in the Towns of Raymond and Casco in Cumberland County. Raymond Pond is a 346-acre lake and has a 4.4 square mile watershed. It is the largest of five ponds that drain into Crescent Lake. Crescent Lake covers 716 acres and has a direct watershed of 6.1 square miles. Crescent Lake flows into Panther Pond, which in turn, empties into Sebago Lake, a public drinking water source for over 45,000 households in Southern Maine.

Crescent Lake and Raymond Pond are developed with over 280 and 150 seasonal and year-round homes, respectively. Water quality on both ponds are threatened by rising development pressures, year-round home conversions. The ponds have been monitored since 1974 and indicates that both ponds have significant depletion of dissolved oxygen in the hypolimnion in late summer. Both ponds are listed on the NPS Priority Watersheds list and list of lakes "Most at Risk from New Development" under the Maine Stormwater Law. The Raymond Conservation Commission spearheaded watershed surveys for both ponds in 1998 and 1999.

PROJECT DESCRIPTION:

The purpose of the Raymond Pond/Crescent Lake Demonstration Project was to demonstrate a variety of conservation practices that reduce erosion, raise awareness about watershed problems and foster long-term watershed stewardship. Staff and volunteers installed conservation practices at 15 demonstration sites, provided technical assistance to 22 landowners, conducted 11 hands-on workshops and hosted two public tours of completed sites. The project also coordinated a Community Watershed Forum, which brought together residents and officials to discuss long-term lake protection strategies.

Project fact fliers were sent to all watershed residents; numerous project updates were printed in local newspapers and newsletters; and "virtual tours" were presented to Town Select Boards. The Portland Water District also delivered their Hydrologics program to classes in the Jordan Small Middle School.


Crescent Lake

PROJECT OUTCOMES:

- 15 erosion sites were stabilized on a variety of sites including private roads, town roads, driveways, residential properties, a commercial campground and a summer youth camp.
- The large variety of conservation practices were installed including the following

Open top culvert (2)	Culvert sleeve (2)
Vegetated buffer plantings (5)	Sediment basin (2)
Infiltration/dripline trenches (4)	Permanent mulching (2)
Earthen waterbars (1)	Riprap stabilization (2)
Turnouts (20)	Waterbars (7)
Level spreaders (15)	Infiltration steps (7)
Culvert inlet/outlet stabilization (5)	Culvert installation (6)
Ditch stabilization (7)	Infiltration basin (1)
Regrading/crowning roads (4)	Bank stabilization (1)
Plunge pool (1)	Trail mulching (2)

- Esti- mated Pollutant Load Reduction - 64 tons/year of sediment (US EPA, Region 5 Method and WEPP:Road model).
- The project's Community Watershed Forum brought together 34 participants to think about ways to achieve long-term watershed stewardship and helped prompt the local monitoring group, RWPA, to expand its role into active stewardship and hire its first Executive Director.

PROJECT PARTNERS:

Town of Raymond
Portland Water District
Raymond Waterways Protective Association
Raymond Conservation Commission
Camp Agawam
Town of Casco

CONTACT INFORMATION:

Wendy Garland (DEP) - 822-6320, wendy.garland@maine.gov
Cumberland County SWCD - 856-2777, www.cumberlandswcd.org

LAKE & WATERSHED ASSOCIATIONS WITH DIRECTOR &/OR YCC STAFF

Belgrade Regional Conservation Alliance
Mike Little, Director
PO Box 250, Belgrade Lakes, ME 04918
495-6039
brca@gwi.net, www.belgradelakes.org
Has a part time paid steward as well. One YCC team in the summer.

China Region Lakes Alliance
Reb Manthey, Director
571 Lakeview Dv., China, ME 04358
445-5021
lakesalliance@yahoo.com, www.lakesalliance.org
Besides the director they have 2-3 YCC teams each summer and a watershed educator.

Lakes Environmental Association
Peter Lowell, Director
230 Main St., Bridgton, ME 04009
647-8580, www.mainelakes.org
Has several staff, a trail crew, interns etc.

Pemaquid Watershed Association
Jennifer Brockway, Director
P.O. Box 552, Damariscotta, ME 04543
Phone: 563-2196
pwa@midcoast.com, www.pemaquidwatershed.org
Work with Lincoln County Trailblazers, together they hired an AmeriCorps member.

Damariscotta Lake Watershed Association
Al Railsback, Director
P.O. Box 3, Jefferson, ME 04348
Phone: 549-3836
dlwa@lincoln.midcoast.com, www.dlwa.org
Hired AmeriCorps members for several years now.

Friends of the Cobbossee Watershed
Bob Moore, Director
PO Box 5003, Augusta, ME 04332
621-4100
mail@watershedfriends.com
www.watershedfriends.com
Have a YCC, an AmeriCorps member, will be hiring a watershed education coordinator.

Walk Pond
Blue Hill
Hires a grad student from UMaine to be a Pond Steward.

Rangely Lakes Heritage Trust
Shelby Reussou
rlht@rangeley.org., www.rangeley.org/rlhthome/
They have a few staff members.

Androscoggin Lake Improvement Corporation
PO Box 307, Wayne ME 04284
207-685-4982
alic@gwi.net
http://www.androscogginlake.org/
Molly Saunders, wvpottery@aol.com
Part time staff, including milfoil program and YCC.

Raymond Waterways Protective Association
Noralee Raymond, Director
PO Box 1243, Raymond, ME 04071
Lakes@raymondmaine.org
671-3329

Thompson Lake Environmental Association
PO Box 25, Oxford, ME 04270
539-4535, tlea@gwi.net
http://home.gwi.net/%7Etlea/homepage.html
Has a YCC director year round; part-time winters, full-time 8 months.

Mousam Lake Association
Pat Baldwin, 636-1224, evenings
21 First St., Shapleigh, ME
baldy@gwi.net, http://mousamlake.org/
Not a year round position, but they do hire a YCC director seasonally.

Highland Lake Association
Greg Scott, President, gscott@cianbro.com
PO Box 1684, Windham, ME 04062
Warren Lydon, YCC contact, Sunset Rd. Falmouth, 878-9007, wlydon@maine.rr.com
www.highlandlake.org
Not a year round position, but they do hire a YCC director seasonally.

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Union River Watershed Coalition
Janet Redman, Director
105 Eden St., Bar Harbor, ME 04609
(207) 288-5015, ext. 424
fax: (207) 288-3780
jredman@ecology.coa.edu
http://www.coa.edu/cahe/docs/content/watershed/urwc/watershed_urwchome.htm

Friends of Royal River Association
Henry Nichols, Director
PO Box 90, Yarmouth, ME 04096
847-9399
royal@maine.rr.com
http://develop.nmdg.com/virtualhosts/communities/royal/about.htm
Hire a YCC seasonally.

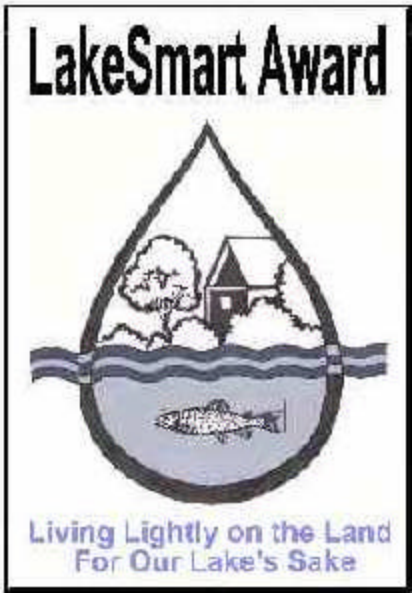
Presumpscot River Watch
Forrest Bell, Director part-time work
PO Box 1416, Westbrook, ME 04092
Prw@maine.rr.com
www.prw-maine.org
650-7597, forrestb@maine.rr.com
1 India St., Portland, ME 04101

River Watershed Councils
Working to protect Atlantic Salmon the downeast Salmon Federation has played an active role in supporting local watershed councils. The DSF has provided office space, meeting space, technical resources and hosts watershed council web pages. To learn more about the councils see the website link and click on Watersheds.
http://www.mainesalmonrivers.org/.
Pleasant River Watershed Council
Narraguagus River Watershed Council
Machias River Watershed Council
East Machias River Watershed Council
Dennys River Watershed Council
Sheepscot River Watershed Council
Cove Brook Watershed Council
Ducktrap Coalition (Coastal Mountains Land Trust)
Friends of Tunk

Thanks to Jessie Mae MacDougall for compiling this list. To find out more contact Jessie Mae at 287-5586 or jessiemae.macdougall@maine.gov

LAKESMART

A program piloted in 2001/02 and rolled out in 2003 to recognize homeowners in lake watersheds who manage and landscape their property in a natural, lake-friendly manner is now approaching its 4th year. To date there have been 29 awards and 36 recognitions presented representing 20 lakes.



How Does the LakeSmart Evaluation Process Work?
The LakeSmart evaluation process involves a site visit by a DEP certified Soil and Water Conservation District employee or an educator from Maine DEP. During the visit the evaluator reviews landscape and management practices in the four following categories:

- Road, Driveway, and Parking Areas;
- Structures and Septic System;
- Lawn, Recreation Areas, and Footpaths; and
- Shorefront and Beach Areas.

Points based on established criteria are given in each category. If a property owner scores 67% or more points in a given category, he or she is recognized for their efforts in that category with an award certificate. Check out who has received LakeSmart Recognition. Often an evaluator will make recommendations for improvements that will help the property qualify for the LakeSmart Award and protect water quality.

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If the property owner scores 67% or more points in ALL of the categories, he or she receives an award plaque and optional sign (pictured above) for their LakeSmart property. The award winners are published (with the permission of the owner) in newspapers, newsletters and on the web page LakeSmart Awards.

There will be a number of LakeSmart workshops around the state this summer. To learn more about the workshops or more about LakeSmart contact Christine Smith at MDEP (207) 287-7734 or Christine.p.smith@maine.gov

CALENDAR OF EVENTS

March 10, 2005. Conference on Innovative Erosion Control Technologies: Dewatering, Coffer Dams. Augusta Civic Center. FMI NPS Training Center 207-287-7726 or http://www.state.me.us/dep/blwq/training/schedule.htm.

March 16-18, 2005. NEAEB conference. Hosted by New York State and will take place at the Fort William Henry Resort in Lake George, NY. FMI Diana L. Heitzman dlheitzm@gw.dec.state.ny.us

March 22, 2005. 2005 Maine Water Conference. Augusta Civic Center, Augusta, ME. The conference theme is 'Connections'. FMI http://www.umaine.edu/WaterResearch.

April 26-29, 2005. 18th Annual National Conference—Enhancing the States' Lake management Programs. "Protecting lakes and reservoirs in urbanizing areas". Chicago, Illinois. Cosponsored by: Chicago Botanic Garden U.S. Environmental Protection Agency & North American Lake Management Society.

May 20, 2005. Southern Maine Children's Water Festival. FMI http://www.state.me.us/dep/blwq/docteacher/event.htm

May 24, 2005. Fostering Sustainable Behavior—Social Marketing with Doug McKenzie-Mohr. To be held at University of New England. Contact Chris Feurt (x 111) or Heather True (x 125)at Wells Reserve 207-646-1555

June 3-4, 2005. NEC-NALMS (New England Chapter of North Am. Lakes Managers Society) annual meeting. Plymouth State College hosted by New Hampshire. FMI Contact Dave Halliwell, Chair NEC-NALMS, Maine DEP, SHS #17, Augusta 04333. 287-7649 david.halliwell@maine.org

June 25, 2005. COLA Annual Meeting. Farmington. FMI http://www.mainecola.org/workshops_conferences.htm

July 12-14, 2005 . "River & Lake Restoration: Changing Landscapes". Portland, ME. Universities Council on Water Resources. FMI www.ucowr.siu.edu

This newsletter is prepared especially of those involved in nonpoint source pollution issues. It is funded through an EPA 319 Clean Water Act Grant. If you have any announcements, comments or items for the Nonpoint Source Times, or if you would like to be added to the mailing list, please call or write:
Kathy Hoppe, Maine DEP, 1235 Central Drive, Presque Isle, ME 04769. phone: 207/764-0477. fax: 207/764-1507. kathy.m.hoppe@state.me.us

Please Help

If you aren't already– please consider receiving the NPS Times electronically. By receiving the newsletter electronically you not only save the state precious dollars that could be used for other NPS activities you will receive it up to a week earlier. Simply email me Kathy.m.hoppe@maine.gov and I will add you to the list. Thank you for helping us save money!

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Presque Isle, ME 04769